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CENTRAL INTELLIGENCE AGENCY

INFORMATION REPORT

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The 1951 research plan of the Elektrochemisches Kombinat, Bitterfeld, is as follows.

1. The Central Laboratory (Director: Dr. E. Bauer) is to work on the following research projects:

   a. Production of alumina (Tonerde Al_2O_3 from clay Ton) by a hydrochloric acid process.

      1) Pure HCl process (Griesheimer or Speckeles process).
      2) HCl process combined with the Bayer process.
      3) HCl process combined with the Penjakoff process.

      The laboratory will also work on a number of related tasks, such as the removal of alumina (Al_2O_3) from the silica (SiO_2) residues, etc. (Directors: Dr. E. Bauer, Dr. Schulze, Dr. Geidel, Henneberger).

   b. Dehydration (Entwässerung) of magnesium chloride for magnesium electrolysis. (Director: Dr. E. Bauer).

   c. Production of titanium boride and boron carbide. (Directors: Dipl. Ing. Hänsel, Tunze).

   d. Development of steel alloys for permanent magnets and hard steels. (Director: Dipl. Ing. Hänsel).

   e. Development of welding electrodes made from light metals. (Director: Dipl. Ing. Hänsel).

   f. Production of lithium salts. (Directors: Dipl. Ing. Hänsel, Henneberger).

   g. Refining of nickel from the low nickel content silicates of the Russian Zone. (Deposits near Chemnitz contain about 0.6 percent nickel). (Directors: Dipl. Ing. Hänsel, Tunze).

   h. Electrolysis of sodium sulphate. (Director: Dr. Hölemann).

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i. Electrolytic manganese. (Director: Dr. Hölemann).

j. Production of pure titanium. (Director: Dr. Seliger).

k. Production of beryllium and beryllium alloys. (Director: Dr. Seliger).

l. Production of fluorine by electrolysis. (Director: Dr. Fuldner).

m. Research into hydrofluoric acid and the Freons. (Director: Dr. Gebhardt).

n. Determination of the range of effectiveness and usability of DDR-hexachlorocyclohexane mixtures, 2-4 D compounds, etc. (Directors: Dr. Weissflog, Dr. Schneider).

o. Development of dusting and spraying agents (insecticides). (Director: Türcke).

2. The Organic and Plastics Laboratory (Director: Dr. Grassl) will work on the following projects:

a. Development of vinyl products containing fluorine. (Directors: Dr. Eckelmann, Dipl. Ing. Schumann).

b. Development of softeners for PCU. (Directors: Dr. Eckelmann, Dr. Leo).

c. Development of stabilizers for PCU. (Director: Dr. Eckelmann).

d. Separation of sebacic acid esters from soft coal paraffin wax. (Directors: Dr. Eckelmann, Dr. Leo).

e. Improvement in the production method and quality of hexachlorocyclo-hexane ($C_6H_6Cl_6$). (Directors: Dr. Kadach, Dr. Bandtel, Dr. Ruppert, Dr. Otto).

f. Phosphoric acid ester and phosphoric acid esters containing sulphur. (Director: Dr. Wallbaum).

g. Production of methylene chloride. (Directors: Dr. Bauer, Chem. Thölert).

h. Improvement of the quality of tricresol phosphate. (Director: Dr. von dem Bruck).

i. Production of terephthalic acid methyl ester as a preliminary product for "Tepylen". (Directors: Dr. Grassl, Dr. Eckelmann).

j. High-frequency welding development for use in the field of plastics. (Director: Dipl. Ing. Vieten).

3. The Inorganic Laboratory (Laboratory of the Inorganic Department, South Plant) (Director: Dr. Wehner) will work on the following projects:

a. Development of titanium enamel. (Director: Dr. Wehner).

b. "Aerosil" (SiO_3). (Director: Dr. Wehner).

c. Barium-potassium-chromate pigment. (Director: Dr. Wehner).

d. Improvement of magnetite electrodes. (Director: Dr. Wehner).

e. Development of a powdery foam fire extinguisher. (Director: Dr. Wehner).

f. Development of a process for the testing and evaluation of carbon and graphite electrodes. (Director: Dr. Wehner).

g. Electrolysis of sodium (NaCl - sodium chloride - electrolysis). (Director: Dipl. Ing. Domboa).

4. The Inorganic Department, South Plant, will work on the following projects:

a. Development of a 3,000-kw graphitization furnace. (Directors: Dr. Winkler, Dr. A. Bauer).

b. Improvement of the quality of titanium dioxide (TiO_2). (Directors: Dr. Bopp, Kirst).

c. Improvement of the quality and extension of the uses of "Igurit" (graphite). (Director: Dr. Bopp).

d. Scouring of gases (removal of chlorine). (Director: Dr. Bopp).

e. Further development of "Kombinatkitt" (trade name for a fluorine silicate product). (Directors: Dr. Weger, Mitlacher).

f. Further development of a chlorate bath fitted with graphite anodes. (Director: Dr. Schindler).

5. The Inorganic Department, North Plant, will work on the following:

a. Production of sodium glutamate and glutamic acid. (Director: Dr. Hloch).

b. Separation of albuminous powder from scrap, etc. (Replacement of casein for hydrochloric acid (HCl) disintegration (sic). Bino soup cubes). (Director: Dr. Hloch).

c. Further development of washing powders having a water-glass basis. (Washing agents containing phosphates and chlorates). (Director: Dr. Klingerer).

d. Development of new grades of corundum (Al_2O_3). (Directors: Dr. Espig, Hünger).

6. The Nitrogen Department will work on the following:

a. Improvement of the aluminum oxide - cobalto-cobaltic oxide (Al_2O_3 - Co_3O_4) catalytic process in the combustion of ammonia. (Directors: Dr. Bielenberg, Dr. Forst, in collaboration with Dr. Riemäcker of Rostock).

b. Purification of laughing gas made from ammonium nitrate. (Director: Dr. Daniel).

7. The Light Metals Department (Metals Laboratory - Director: Dr. Schichtel) will work on the following:

a. Replacement of lithium salts in light metal welding. (Director: Dr. Schichtel).

b. Aluminum chloride electrolysis. (Director: Dr. Geidel).

8. The Russian Ministry for Industry has commissioned the following projects:

a. Development of a casing material for cables which would be suitable for use at temperatures from 480° to -40° C. This has not yet definitely been accepted by the Plastics Laboratory because the Russian specifications are too high. (Directors: Dr. Grassl, Dr. Eckelmann).

b. Development of a heat-resistant magnesium alloy having a tensile strength of 8 kg./mm.^{2} at 200° C. (Director: Dr. Schichtel).

c. Foam fire extinguisher. (Director: Dr. Wehner).

9. The Engineering Department (Directors: Dr. Schiller (?), Dr. Gruhl, Dr. Reinecke) will work on the following:

a. Development of an improved dust extractor for the power station.

b. Improvement of the gumming process.

c. Improvement of the ring scales for measuring quantities of gases.

10. It is planned to spend 2,950,000 DM on research in 1951. This is about one percent of the planned production of about 275,000,000 DM for the year.

11. The number of persons employed on research is 267. This figure includes 57 chemists and engineers, 15 of whom are employed full-time on research. The remainder are employed part-time in the various plants.

12. The organization of the Research and Development Section is as follows:

Director : Dr. Oskar Meyer. (Scientific Member)
Deputy Director: Dr. E. Bauer. (Vice Director of Research)

They are responsible for all research in laboratories and production departments and for all semi-technical plants, but not for the analytical laboratories which test raw products, intermediate products and finished products.

a. Central Laboratory.

Director	Dr. E. Bauer
Deputy Director	Dr. Schulze
Electrolysis Laboratory	Dr. Hölemann
Physico-chemical Laboratory	Dr. Gebhardt, Dr. Seliger (from 1 January 1951)

Biological Laboratory	Dr. Weissflog, Dr. Schneider
Heavy Metals Laboratory	Dipl. Ing. Hänsel
Inorganic Laboratory I	Dr. Schulze
Inorganic Laboratory II	Hennеberger
Chlorine-organic Laboratory	Dr. Fuldner
Weedkiller and Insecticides Laboratory	Türcke
Large Technical Plants	Dr. Schulze

b. Chief Analytical Laboratory.

Head of the Research Section	Dr. Wehner, assisted by Dr. Brüuning, Chem. Wittenberg and Chem. Bunge.

c. Plastics Laboratory and Organic Laboratory.

Director	Dr. Grassl, assisted by Dr. Leo, Dr. Eckelmann and Dipl. Ing. Schumann.
Micro-Laboratory	Dr. Marx
Aplications-Technics Laboratory	Dr. Kaltenborn

(Note: The factory expects to receive an electron microscope in the middle of 1951 and the control of the Micro-Laboratory will then be transferred, with Dr. Marx, to the Central Laboratory.)

Organic Laboratory	Dr. Ruppert, Dr. Kadach, Dr. Bandtel and Chem. Thelert. (These men are also in charge of plants.)

d. Laboratory of the Inorganic Department, North Plant.

Inorganic	Dr. Heymann
Organic (under the supervision of Dr. Grassl)	Dr. Otto

e. Light Metals Laboratory.

Dr. Schichtel and Ir. Geidel.

f. Nitrogen Laboratory.

Dr. Beyer, Dr. Forst and Dr. Daniel.

g. Research Section of the Materials-Testing Office of the Engineering Department.

Dr. Holub and Ing. Helbing.

h. Semi-Technical Research Plants.

Alumina plant (Technical Department of Central Laboratory): Dr. Bauer, Dr. Schulze.

Sodium electrolysis plant (Technical Department of Central Laboratory); one cell of 6,000 amperes: Dr. Chem. Domboa, Dr. Wehner.

Chromic acid plant (Analytical Laboratory); chromic acid (CrO_3) from potassium bichromate ($K_2Cr_2O_7$) : Dr. Wehner.

Methylene chloride plant (benzoic acid plant of the Organic Department); Methyl alcohol - methylchloride - methylene chloride ($CH_3OH - CH_3Cl - CH_2Cl_2$) : Dr. Bauer, Thelert.

Mixed fertilizers research plant (Nitrogen Department); one ton per day of phosphorus-nitrogen fertilizer from apatite + HNO_3 (nitric acid) + ammonium sulphate : Dr. Bielenberg, Dr. Schulze.

Chlorate plant (North Plant); one ton per day of chlorate by the Liebig process from sodium sulphate, calcium oxide and chlorine ($Na_2SO_4 + CaO + Cl_2$) : Dr. Ehlert.

Barium carbonate plant (North Plant); from 1 to 1.3 tons per day of barium carbonate ($BaCO_3$) from barium sulphate plus sodium carbonate ($Ba_2SO_4 + Na_2CO_3$) : Dr. Heymann.

Hexachlorocyclohexane (666) plant (Organic Department); 100 kg. per day of gamma-isomers from the end of January 1951 : Dr. Kadach, Dr. Ruppert and Dr. Bandtel.

Columbium-tantalum carbide research plant (Central Laboratory); two tons per month of carbide : Dr. Schulze, Tunze.

Smelting research (Central Laboratory); permanent magnets, etc. : Dipl. Ing. Hänsel.

2-4 D research plant (North Plant); one ton per month of dichlorophenoxyacetic acid and salts : Dr. Ehlers, Dipl. Ing. Walter.

Benztriazol research plant (Plastics Laboratory); 500 kg. per month from phenylenediamine by "Diazolierung" : Dr. Eckelmann.

Chlorate research cells (Inorganic Department, South Plant); using graphite anodes; 20,000-ampere $NaClO_3$ baths : Dr. Schindler.

Oil and bearings test-bench in the Materials Testing Office: Dr. Holub.